2c-Aim: Write a program to interchange a digit store in 0011, store the new value in memory allocation and store the addition of both number in 0013.

Code:

```
LDA 0011
MOV B,A
RRC
RRC
RRC
RRC
STA 0012
ADD B
STA 0013
HLT
```

Memory address / value:

0011 53

0012

0013

2D-Aim: Write a p to increment the value of the series of 5 variables by 1.

Code:

```
LXI H,0001
MVI C,05
MVI B,00
LOOP: MOV A,M
      ADI 01
MOV M,A
INX H
DCR C
JNZ LOOP
HLT
```

Memory address / value:

0001	01
0002	02
0003	03
0004	04
0005	05

3A-Aim: W a 8085 P to copy a series of five number, from memory allocation E002 to E004 and value will be copying in memory allocation E005 to E009.

Code:

```
LXI D,E000
LXI H,E005
MVI C,05
UP: MOV B,M
LDAX D
MOV M,A
STAX D
INX H
INX D
DCR C
JNZ UP
HLT
```

Memory address / value:

E000	**55**
E001	**56**
E002	
E003	
E004	

3B-AIM: W.A.8085.P to reverse the value of 5 number starting from memery location E004 to E001 and copy the value from the memory allocation .

Code:

```
LXI D,E004
LXI H,E005
MVI C,05
UP: MOV B,M
LDAX D
MOV M,A
STAX D
INX H
INX D
DCR C
JNZ UP
HLT
```

Memory address / value:

E000 **55**

E001 **56**

E002

E003

E004

4A-Aim: W,a ,8085.p to store the largest number in memory allocation in E003(two are stored in E001 to E002).

Code:

```
LXI H,E001
MOV A,M
INX H
CMP M
JNC AHEAD
AHEAD: MOV A,M
STA E003
```

HLT

Memory address / value:

E001 05

E002 02

E003 00

4B : WRITE A 8085 PROGRAM TO FIND THE SUM OF EVEN NUMBERS TO STORE IN THE SERIES OF FOUR NUMBERS. SERIES STARTS FROM E001 NUMBER OF ELEMENT STORED IN E004 AND RESULT MUST BE LOADED IN MEMORY E005.

CODE:

```
        LDA E000
        MOV C,A
        MVI B,00
        LXI H,E001

BACK:   MOV A,M
        ANI 01
        JZ SKIP
        MOV A,B
        ADD M
        MOV B,A

SKIP:   INX H
        DCR C
        JNZ BACK
        MOV A,B
        STA E005
        HLT
```

MEMORY/VALUE:

E000 04

E001 05

E002 02

E003 03

E004 04

E005 08

OUTPUT:

001B	76
E000	04
E001	05
E002	02
E003	03
E004	04
E005	08

5b: write a program in 8085 to find factorial of a number memory location E010

CODE:

```
START:  LXI H,E010
        MOV B,M
        MVI A,00
        MOV D,B
        DCR B
        JZ CNT
        MOV E,B

MUL:    ADD D
        DCR B
        JNZ MUL
        MOV D,A
        MVI A,00
        DCR B
        JMP START
```

CNT: MOV A,D

HLT

MEMORY / VALUE

E010 04

6A: WRITE A ASSEMBLY PROGRAM TO DIVIDE THE TWO NUMBER STORED DIVIDEND IN E000 AND REMAINDER IN E002 AND QOUTIENT IN E003

CODE:

LXI H, E000

MOV B, M

MVI C, 00

CMP B

SUB B

INR C

LOOP: STA E002

MOV A, C

HLT

MEMORY/VALUE

E000 03

E001 08

E002 00

E003 00

6B:PROGRAM TO STORE 5 RANDOM NUMBER E000TO E004

CODE:

```
START:  MVI D,05

W:      LXI H,E000
        MVI C,05

X:      MOV A,M
        INX H
        MOV B,M
        CMP B
        JM Y

Y:      MOV M,A
        DCX H
        MOV M,B
        INX H
        DCR C
        JNZ X
        DCR D
        JNZ W
        HLT
```

MEMORY/ VALUE

E000 /02

E001/01

E002/06

E003/04

E004/02

6D:PROGRAM TO UNPACK A PACK NUMBER STORED IN D000 STORE THE RESULT IN D000 AND D002

CODE:

```
LDA D000
MOV B,A
ANI F0
RRC
RRC
RRC
RRC
STA D001
MOV A,B
ANI 0F
STA D002
HLT
```

MEMORY/VALUE

D000 / 53

OUTPUT:

D000	53
D001	05
D002	03